

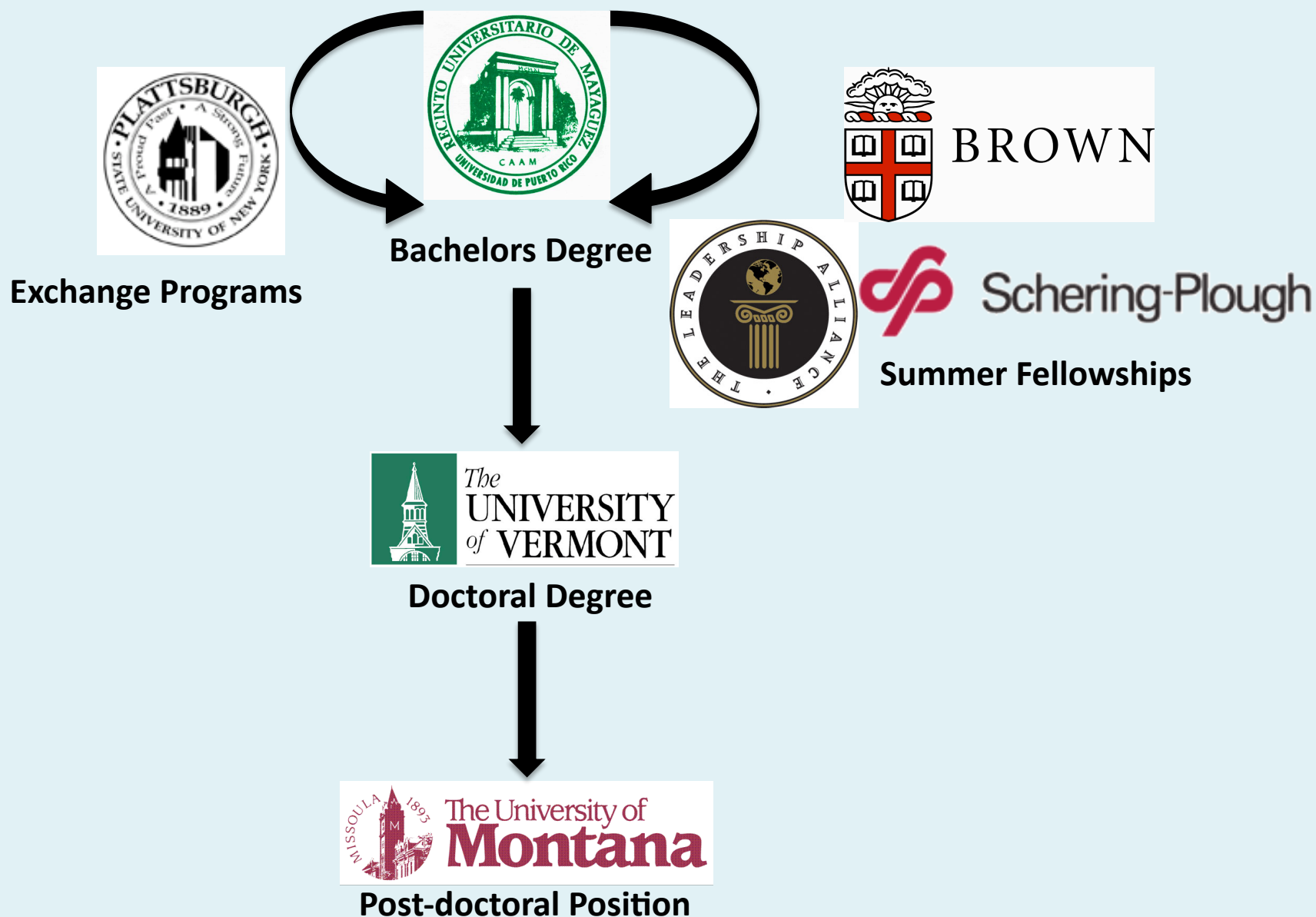
Building Partnerships with Minority Serving Institutions (MSI): *Empowering Culturally-Relevant Faculty Role Models*

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Outline

- Background
- Current Minority Mentoring Models
- Proposed Approach
 - Empowering minority serving institutions
 - Providing culturally relevant role models

Typical Path for Minorities in Research

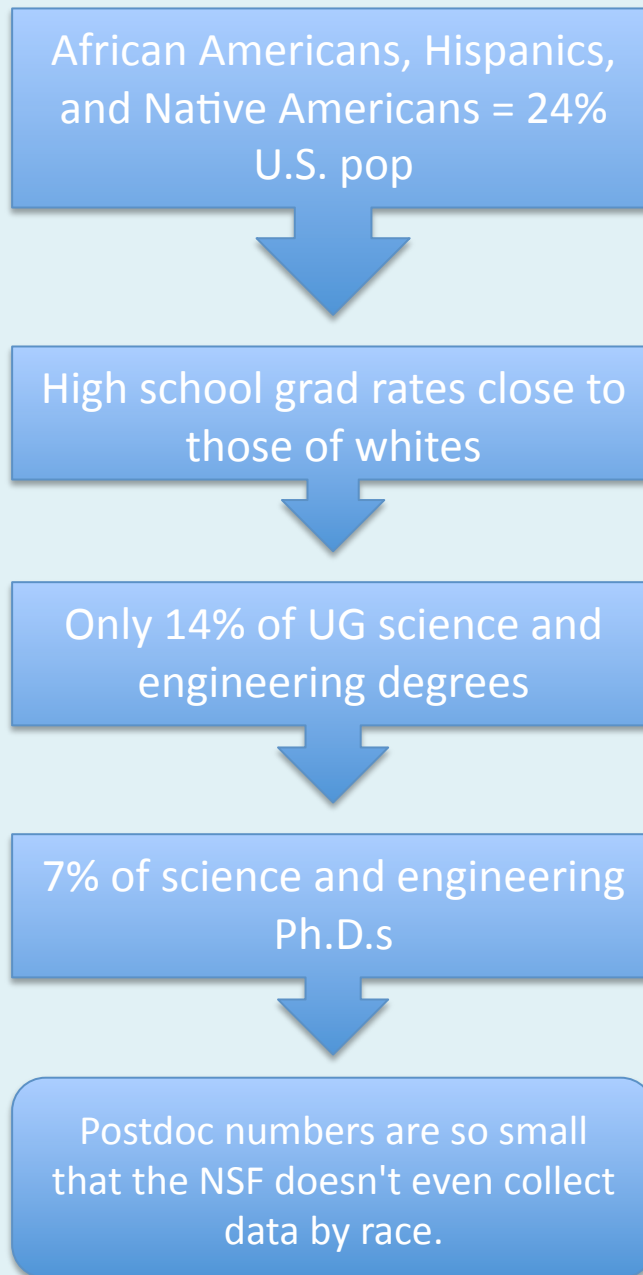


Current Mentoring Model

- Opportunities are limited, but available, for minorities at the training stage...**so what's missing?**
- **Culturally relevant faculty role models!**
- **High quality, active research opportunities within minority institutions.**

Culturally relevant role models

- Why do we lack them?



The Numbers Game

Mervis
Science 3 September 1999:Vol.
285. no. 5433, pp. 1529 – 1530

What next? Life after grad school.

- Lack of opportunities post graduate school in academia.
 - This results in low success rate, which is seen by other students from the same minority group as a deterrent.

The reality of academia

70% in 2004



Non-tenured faculty-level jobs

55% of hires
in 1989

10% in 1993

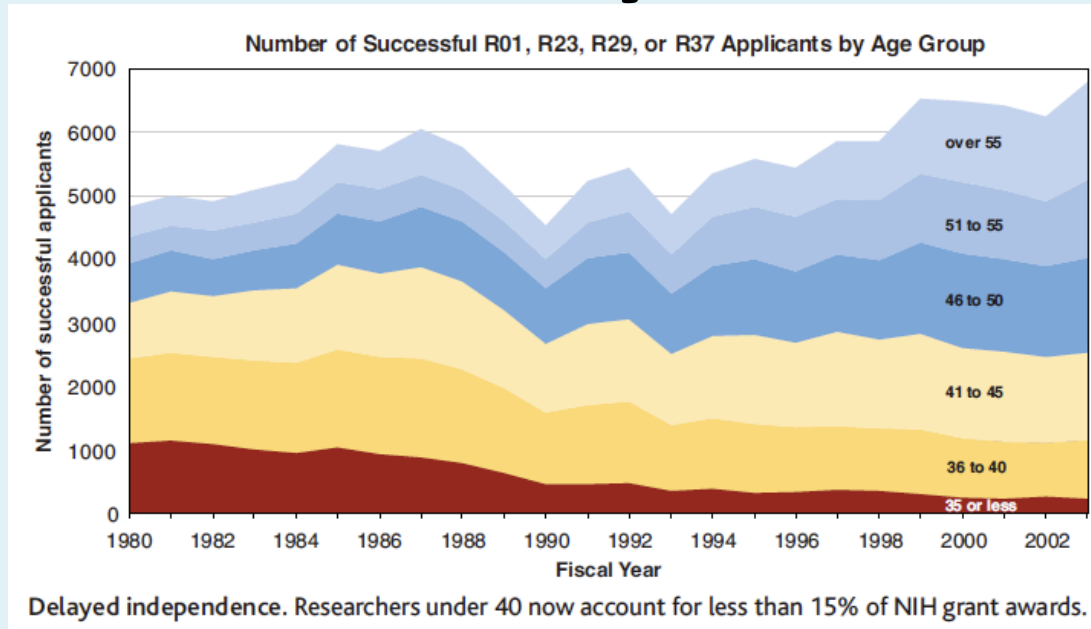


Tenured faculty-level jobs

7% in 2003

(Benderly 2004; *Science Careers*)

The reality of academia



(*Science and Engineering Indicators 2006*). (*Nature Chemical Biology* 3, 69 (2007))

As of 2004:

- Avg age for PIs first NIH R01 grant was 42
- Compare to 37 in 1980

From 1973 to 2003:

- Faculty aged ≤ 35 declined from 25% to $<10\%$
- Tenured professors are also delaying retirement.

The reality of academia

- Between 1993-2000
 - life science Ph.D.s in tenure track aged <35 declined by 12.1%, to 543;
- Ph.D.s in that age range increased by 59%
 - >20,000
 - tens of thousands more scientists with foreign Ph.D.s came to fill postdoc positions in U.S. labs

The bottom line.

Statistically, it is unrealistic to expect huge advances in culturally relevant role models under current conditions.

Culturally relevant role models

- Universities and funding agencies must provide:

- Financial support for universities for recruitment of junior faculty

Or

- Financial support for early career minority researchers beyond postdoc and prior to tenure track positions.

Second hurdle

Opportunities for those who are left behind.

Research opportunities within minority institutions

- Current state/problems:
 - Students must leave institutions for high quality experiences in science.
 - Disconnect between learning and application
 - Disconnect in research type between host institutions and home institutions.

Research opportunities within minority institutions

- Current state/problems:
 - Current approaches “recruit” minorities mostly for benefit of host institution.
 - Research grants are awarded to host institutions not home (minority) institutions.
 - Less effective as only small group of students actually participate and benefit.



Adjunct



Res Asst Professor



Adjunct

A working model in progress

- Classes and training support via Polycom

- Summer research training at UM followed by continued research at CDKC

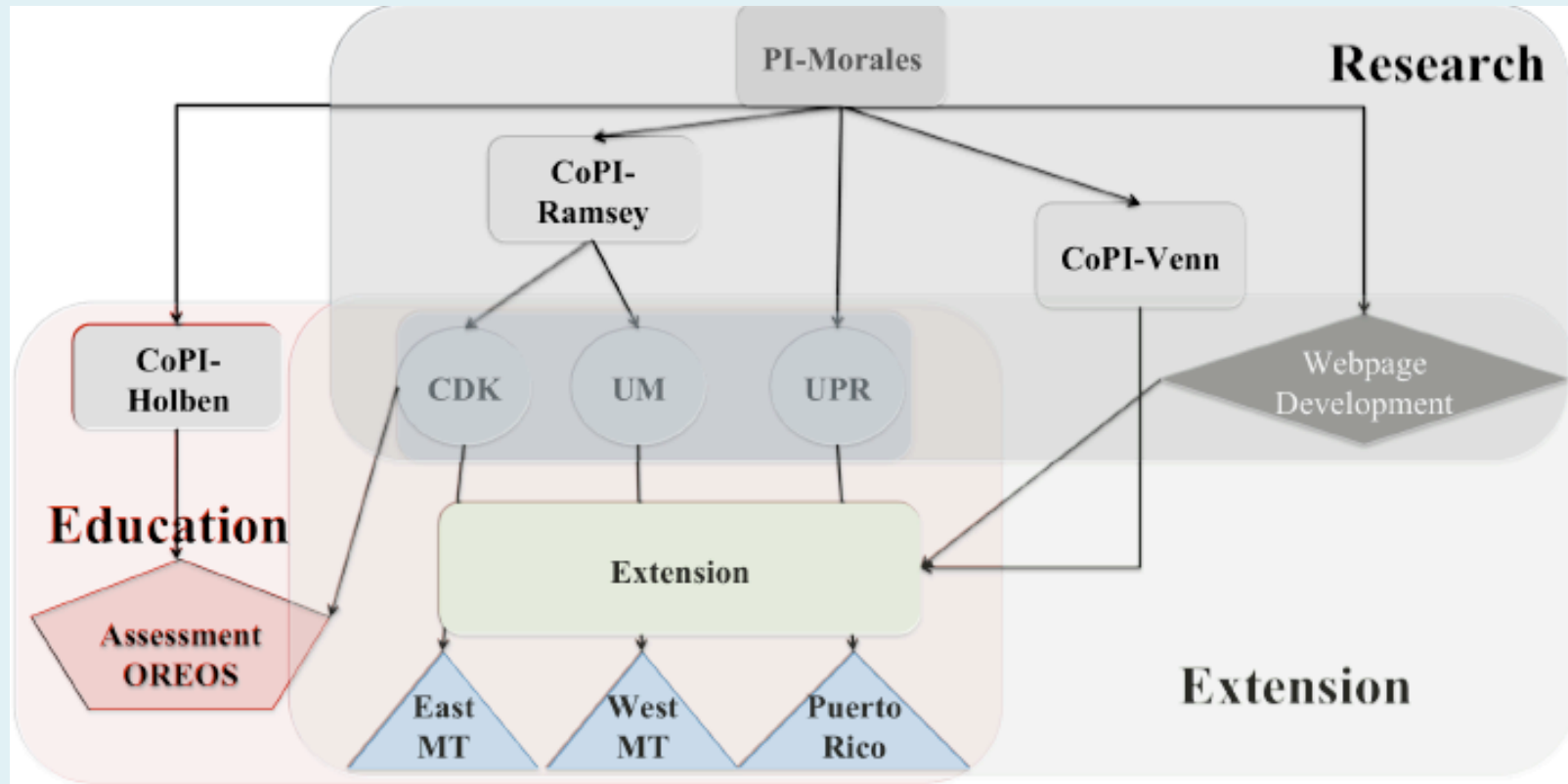
- Pursuing grants to be submitted directly through CDKC

- Currently applying for grants to setup mirror research programs at UM and UPR.

- Summer research training at UM followed by continued research at UPR

- Pursuing grants to be submitted directly through UPR

Integration into full research grants



Bacterial populations as indicators of greenhouse gas emission in soils: Integrating Basic Research, Undergraduate Education and Extension.

Research opportunities within minority institutions

- Benefits:
 - Enables culturally relevant role models to pursue high quality research in MSIs
 - Make current, high quality research available to the entire MSI population.
 - Students continue to apply learned skills at home institutions.
 - Gives power to MSI to allocate resources where they see fit; less oversight from outside institutions.

Acknowledgements

